

IN THE CLAIMS

Please add the following new claims:

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20. A pharmaceutical composition comprising the protein according to claim 1.
21. The pharmaceutical composition according to claim 20, wherein said composition is intended for a cell-calcification inhibitor.
22. An antibody to the C-11 protein according to claim 1.
23. The antibody according to claim 22, wherein said antibody is a monoclonal antibody.
24. A method for measuring the calcification of cells comprising:
measuring the expression of a C-11 gene or a c-erg gene in the cells.
25. The method according to claim 24, wherein the expression of the gene is measured by the amount of C-11 mRNA expressed in the cells or the amount of c-erg mRNA expressed in the cells using a probe against a DNA sequence specific to the C-11 gene or to the c-erg gene.
26. The method according to claim 24, wherein the expression of the gene is measured by the amount of expression of a C-11 protein in the cells or the amount of expression of a c-erg protein in the cells.
27. The method according to claim 24, wherein the expression of the gene is measured by the amount of the C-11 protein expressed in the cells or the amount of the c-erg protein expressed in the cells by means of the antibody according to claims 22 or 23.
28. A method for diagnosing osteoarthritis or OPLL comprising:
measuring the cell-calcification using a method according to any of claims 24-27.
29. A kit for measuring the cell-calcification of cells comprising either or both of an antibody to a C-11 protein and an antibody to a c-erg protein.

30. A method for screening a substance having cell-calcification inhibitory blocking activity, said method comprising using cells transformed with a gene encoding a protein selected from the group consisting of:

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CONT
- (a) a protein comprising an amino acid sequence having SEQ ID NO. 2;
 - (b) a protein comprising an amino acid sequence that is derived from the amino acid sequence having SEQ ID NO. 2 by deletion, substitution or insertion of one or more amino acids, said protein having cell-calcification inhibitory activity;
 - (c) a protein comprising an amino acid sequence having SEQ ID NO. 4; and
 - (d) a protein comprising an amino acid sequence that is derived from the amino acid sequence having SEQ ID NO. 4 by deletion, substitution or insertion of one or more amino acids, said protein having cell-calcification inhibitory activity.

31. A pharmaceutical composition comprising an erg protein.

Sub D1 32. A pharmaceutical composition comprising an erg gene.

33. A pharmaceutical composition comprising a C-11 protein or a c-erg protein.

Sub D1 34. A pharmaceutical composition comprising a C-11 gene or a c-erg gene.

35. A pharmaceutical composition comprising a protein having a consensus amino acid sequence between a c-erg protein and a C-11 protein.

Sub D1 36. A nucleic acid which is complementary to at least a portion of a nucleic acid encoding a C-11 protein selected from the group consisting of:

- (a) a nucleotide primer capable of amplifying a nucleic acid encoding a protein comprising the amino acids as set forth in SEQ ID NO:2;
- (b) a nucleotide primer capable of amplifying a nucleic acid encoding a protein comprising amino acids derived from SEQ ID NO: 4; and

Sub D1 (c) a nucleotide probe capable of identifying a nucleic acid encoding a protein having cell calcification inhibitory activity,

wherein said complementary nucleic acids (a), (b), and (c) comprise the complement of nucleotides 645 to 662 as set forth in SEQ ID NO:1.

B2 sub D1 CONT ✓ 37. The nucleic acid of claim 36, wherein said probe is labeled.

✓ 38. The nucleic acid of claim 37, wherein said label is selected from the group consisting of isotopic and non-isotopic labels.

39. A method of expressing an antisense nucleic acid from an expression vector incorporating a nucleic acid comprised of a nucleotide sequence selected from the group consisting of SEQ ID NO. 1 and the nucleotide sequences encoding the amino acids set forth in SEQ ID NOS. 2 and 4 comprising the steps of:

(i) transfecting a cell with an expression vector comprising the incorporated nucleic acid, wherein said incorporated nucleic acid is transcribed as an antisense molecule; and

(ii) propagating said transfected cell, wherein said antisense expression inhibits cell calcification inhibitory activity in said transfected cell.